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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,097	01/15/2002	Junji Tanaka	8014-1003	1268

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EXAMINER

PATEL, GAUTAM

ART UNIT	PAPER NUMBER
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2655

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DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,097

Applicant(s)

TANAKA, JUNJI

Examiner

Gautam R. Patel

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-4 are pending for the examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. § 119(a)-(d), which papers have been placed of record in the file.

Specification

3. The disclosure is objected for following reasons.

The title of the invention is neither precise nor descriptive. A new title is required which should include, using twenty words or fewer, claimed features that differentiate the invention from the Prior Art. It is recommended that the title should reflect the gist of or the improvement of the present invention.

Correction is required.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1 and 3 are rejected under 35 U.S.C. § 102(e) as being anticipated by Hikima et al., US. patent 6,337,838 (hereafter Hikima).

As to claim 1, Hikima discloses the invention as claimed, a pre-pit detector [see Figs. 1-8, especially 1 and 3] including a push-pull circuit and an amplitude correcting device, comprising:

Art Unit: 2655

an amplitude correcting device [fig. 1, units 2 &3] for computing the amplitude of the first read signal and the amplitude of the second read signal to bring both amplitudes close to each other and consequently make them coincide, such that said push-pull circuit performs a computation on the difference between the first and second read signals whose amplitudes have been made to coincide by said amplitude correcting device [col. 5, line 16 to col. 6, line 16].

5. The aforementioned claim 3, recites the following elements, inter alia, disclosed in Hikima:

the difference computed by said amplitude correcting device is the difference between the maximum amplitude of the first read signal and the maximum amplitude of the second read signal [col. 5, line 16 to col. 6, line 16 and col. 7, lines 4-23].

Claim Rejections - 35 U.S.C. § 103

6. The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

As to claim 2, Hikima discloses all of the above elements, including a push-pull circuit and an amplitude correcting device. And Hikima clearly states that his system can be modified such that only RF signal component is canceled [col. 7, lines 16-23];

Hikima does not specifically disclose that a capacitor or a high pass filter can be used in his system for removing the DC component to the extent claimed.

However, use of the capacitor is well known in the art for a long time. And one of ordinary skill in the art at the time invention would have known that offset in the push-pull signal give erroneous results, so removing this component will provide better

Art Unit: 2655

signals which are independent of the original DC level signal of the signal. And. Also Masui clearly discloses:

a device [HPF] for removing a direct current component from the amplitude of the first read signal and a device for removing the direct current component from the amplitude of the second read signal, wherein said amplitude correcting device computes the difference between the amplitudes of the first and second read signals, from which the direct-current component has been removed, to bring both amplitudes close to each other and consequently make them coincide [col. 9, lines 55-67].

Both Hikima and Masui are interested in detecting the pus-pull signal and processing it. Both show associated circuits for doing that.

One of ordinary skill in the art at the time of invention would have realized that the push-pull signal of Hikima would have been sensitive DC level and offset and that any offset would force system to operate at certain fixed DC level and this would have compromised the freedom of moving the electrical signals.

Therefore, it would have been obvious to have used a HPF or DC component remover in the system of Hikima as taught by Masui because one would be motivated to reduce noise and remove the offset from the push-pull signal in the system of Hikima and provide better signal controls and improve freedom of operation by removing te offset from the push-pull signal [col. 9, lines 64-67; Masui].

7. The aforementioned claim 4, recites the following elements, inter alia, disclosed in Hikima:

the difference computed by said amplitude correcting device is the difference between the maximum amplitude of the first read signal and the maximum amplitude of the second read signal [col. 5, line 16 to col. 6, line 16 and col. 7, lines 4-23].

Other prior art cited

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Yokoi et al. (US. Patent 6,487,149) "Optical recording ..".

Art Unit: 2655

- b. Yoshida et al. (US. patent 6,603,726) "Pre-pit detection unit".

Contact Information


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gautam R. Patel whose telephone number is (703) 308-7940. The examiner can normally be reached on Monday through Thursday from 7:30 to 6.

The appropriate fax number for the organization (Group 2650) where this application or proceeding is assigned is (703) 872-9314.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Doris To can be reached on (703) 305-4827.

Any inquiry of a general nature or relating to the status of this application should be directed to the group receptionist whose telephone number is (703) 305-4700 or the group Customer Service section whose telephone number is (703) 306-0377.

Gautam R. Patel
Primary Examiner
Group Art Unit 2655


GAUTAM R. PATEL
PRIMARY EXAMINER

August 22, 2004